

# The Path to 80% Reductions by 2050.

## Low Emissions Community Actions Summary

Action	Cumulative Emissions Reductions 2020-2050 (tonnes CO <sub>2</sub> e)	Municipal Action (M) Community Action (C)	Action Phase
<b>Buildings &amp; Energy Efficiency</b>			
<b>1</b> Apply energy efficiency standards (build to Passive House) to all new municipal buildings.	<b>28,000</b>	<b>M</b>	<b>P2</b>
<b>2</b> Perform deep energy retrofits on municipal buildings.	<b>175,000</b>	<b>M</b>	<b>P2</b>
<b>3</b> Upgrade plugged appliances and energy conservation behaviours in municipal buildings.	<b>4,000</b>	<b>M</b>	<b>P2</b>
<b>4</b> Update all municipal building lighting systems.	<b>5,000</b>	<b>M</b>	<b>P1</b>
<b>5</b> Retrofit municipal heating and cooling systems with ground-source or air source heat pumps.	<b>204,000</b>	<b>M</b>	<b>P2</b>
<b>6</b> Create an electric and thermal energy consumption cap for new home construction by utilizing a municipal step code.	<b>1,130,000</b>	<b>C</b>	<b>P2</b>
<b>7</b> Require new homes to include roof solar Photovoltaic (PV) installations in the final year of a municipal step code.	<b>5,049,000</b>	<b>C</b>	<b>P4</b>
<b>8</b> Create an electric and thermal energy consumption cap for new ICI construction by utilizing a municipal step code.	<b>6,660,000</b>	<b>C</b>	<b>P2</b>
<b>9</b> Require new ICI buildings to include roof solar PV installations. In the final year of a municipal step code.	<b>28,000</b>	<b>C</b>	<b>P4</b>
<b>10</b> Incentivize and later mandate homeowners to perform deep energy retrofits.	<b>2,013,000</b>	<b>C</b>	<b>P2</b>
<b>11</b> Incentivize and later mandate ICI owners and operators to perform deep energy retrofits.	<b>3,469,000</b>	<b>C</b>	<b>P2</b>
<b>12</b> Require energy efficiency improvements residential and ICI building lighting systems.	<b>147,000</b>	<b>C</b>	<b>P3</b>
<b>13</b> Incentivize and later mandate homeowners to upgrade household appliances to energy and water efficient models	<b>582,000</b>	<b>C</b>	<b>P4</b>
<b>14</b> Retrofit home heating and cooling systems with ground-source or air source heat pumps.	<b>2,120,000</b>	<b>C</b>	<b>P3</b>
<b>15</b> Retrofit ICI heating and cooling systems with ground-source or air source heat pumps.	<b>658,000</b>	<b>C</b>	<b>P3</b>
<b>16</b> Increase the efficiency of industrial processes.	<b>232,000</b>	<b>C</b>	<b>P4</b>

### Action Implementation Timeline Legend

**P1** **Phase 1 Projects:** Action is already in planning or drafted strategy phase

**P2** **Phase 2 Projects:** Action planning and implementation to be started in the next 4 years

**P3** **Phase 3 Projects:** Action planning and implementation to be started in the next 5-8 years

**P4** **Phase 4 Projects:** Action planning and implementation to be started in the next 12+ years

Transportation				
<b>17</b>	Electrify the Municipal fleet over the near-term.	<b>77,000</b>	M	P2
<b>18</b>	Electrify the Municipal transit fleet.	<b>55,000</b>	M	P2
<b>19</b>	Implement a vehicle pollution pricing program in high traffic areas.	<b>698,000</b>	M	P3
<b>20</b>	Increase transit routes and frequency through future updates to the Transit Plan.	<b>942,000</b>	M	P1
<b>21</b>	Electrify personal vehicles through incentive programs, education, and automotive dealer partnerships	<b>2,756,000</b>	C	P2
<b>22</b>	Electrify commercial vehicles through incentive programs, education, and automotive dealer partnerships	<b>6,860,000</b>	C	P3
<b>23</b>	Fund and implement improved cycling and walking infrastructure to encourage active transportation.	<b>287,000</b>	M	P1
Waste				
<b>24</b>	Improve and expand waste management programs and services to increase reduction and diversion.	<b>1,303,000</b>	M	P2
Water Conservation				
<b>25</b>	Decrease water use through efficiency, monitoring, and leak reduction.	<b>25,000</b>	M	P2
<b>26</b>	Reduce residential and ICI water use through education programming and water efficiency incentive programs.	<b>147,000</b>	C	P2
Land Use				
<b>27</b>	Build complete, compact communities through infill development, mixed-use buildings, and compact housing.	<b>3,353,000</b>	M	P4
<b>28</b>	Focus development on densification in previously developed areas, increasing the number of multi-family buildings.	<b>Included in #27</b>	M	P4
Energy Generation				
<b>29</b>	Install solar PV systems on municipal buildings.	<b>236,000</b>	M	P2
<b>30</b>	Install solar PV systems on municipal lands	<b>Included in #34</b>	M	P2
<b>31</b>	Increase Landfill Gas Capture from the Saskatoon Landfill	<b>1,891,000</b>	M	P2
<b>32</b>	Encourage existing residential building owners and mandate new buildings to install solar PV system through programming and bylaw.	<b>195,000</b>	C	P2
<b>33</b>	Encourage existing ICI building owners and mandate new buildings to install solar PV systems through programming and bylaw.	<b>1,147,000</b>	C	P3

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<b>34</b>	Install new solar PV utility-scale facilities within or adjacent to city boundaries. With areas within city boundary to be prioritized first.	<b>1,626,000</b>	<b>M</b>	<b>P2</b>
<b>35</b>	Install a CHP facility at St. Paul's Hospital.	<b>40,000</b>	<b>M</b>	<b>P2</b>
<b>36</b>	Implement district energy systems in the downtown and north downtown areas.	<b>1,079,000</b>	<b>M</b>	<b>P4</b>
<b>37</b>	Construct a hydropower plant at the weir.	<b>218,000</b>	<b>M</b>	<b>P3</b>
<b>38</b>	Install renewable energy storage over time.	<b>3,435,000</b>	<b>M</b>	<b>P2</b>
<b>39</b>	Procure renewable electricity from third party producers.	<b>54,119,000</b>	<b>M</b>	<b>P4</b>
<b>40</b>	Procure Renewable Natural Gas from third party producers.	<b>40,607,000</b>	<b>M</b>	<b>P4</b>

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